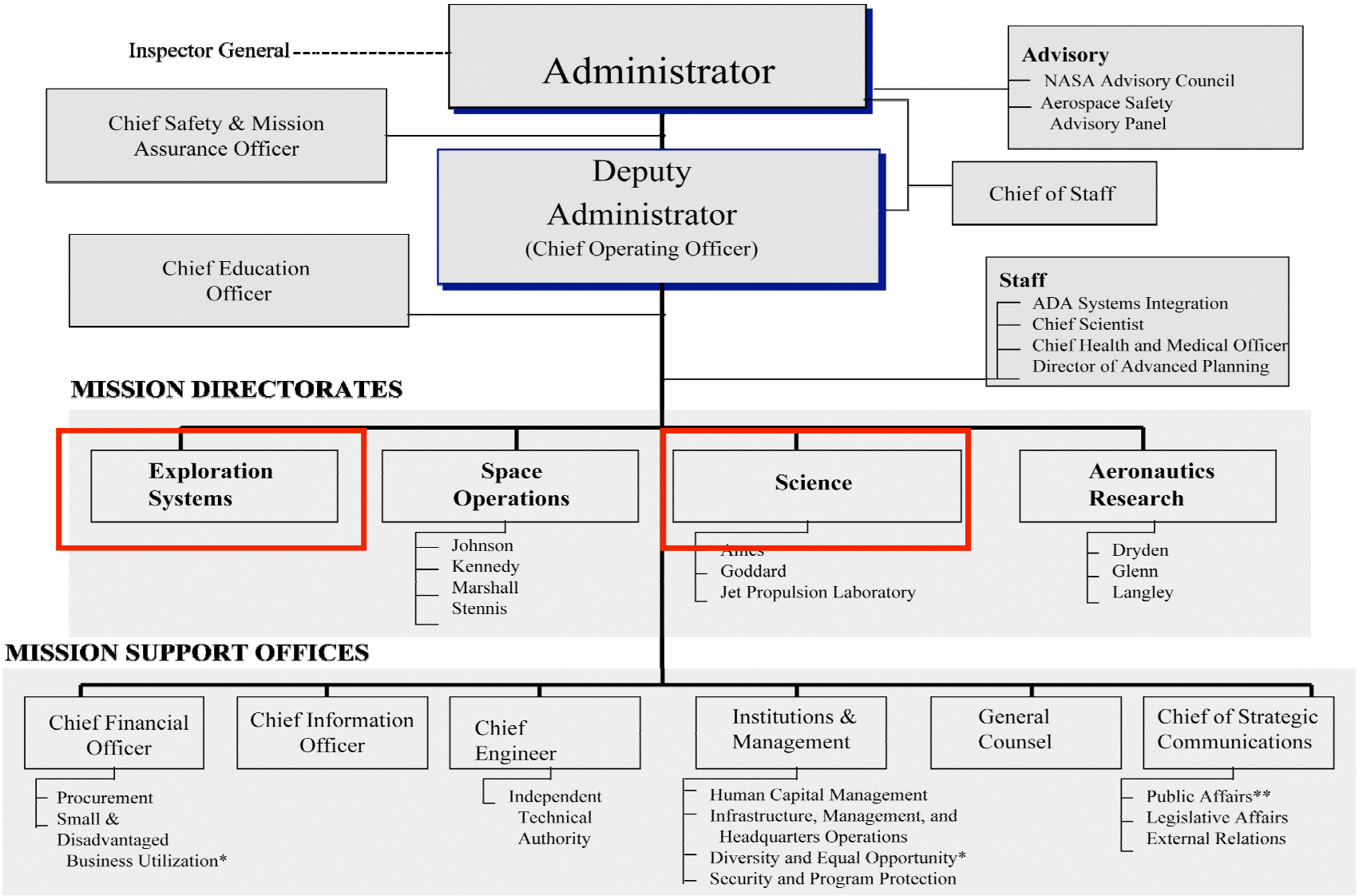
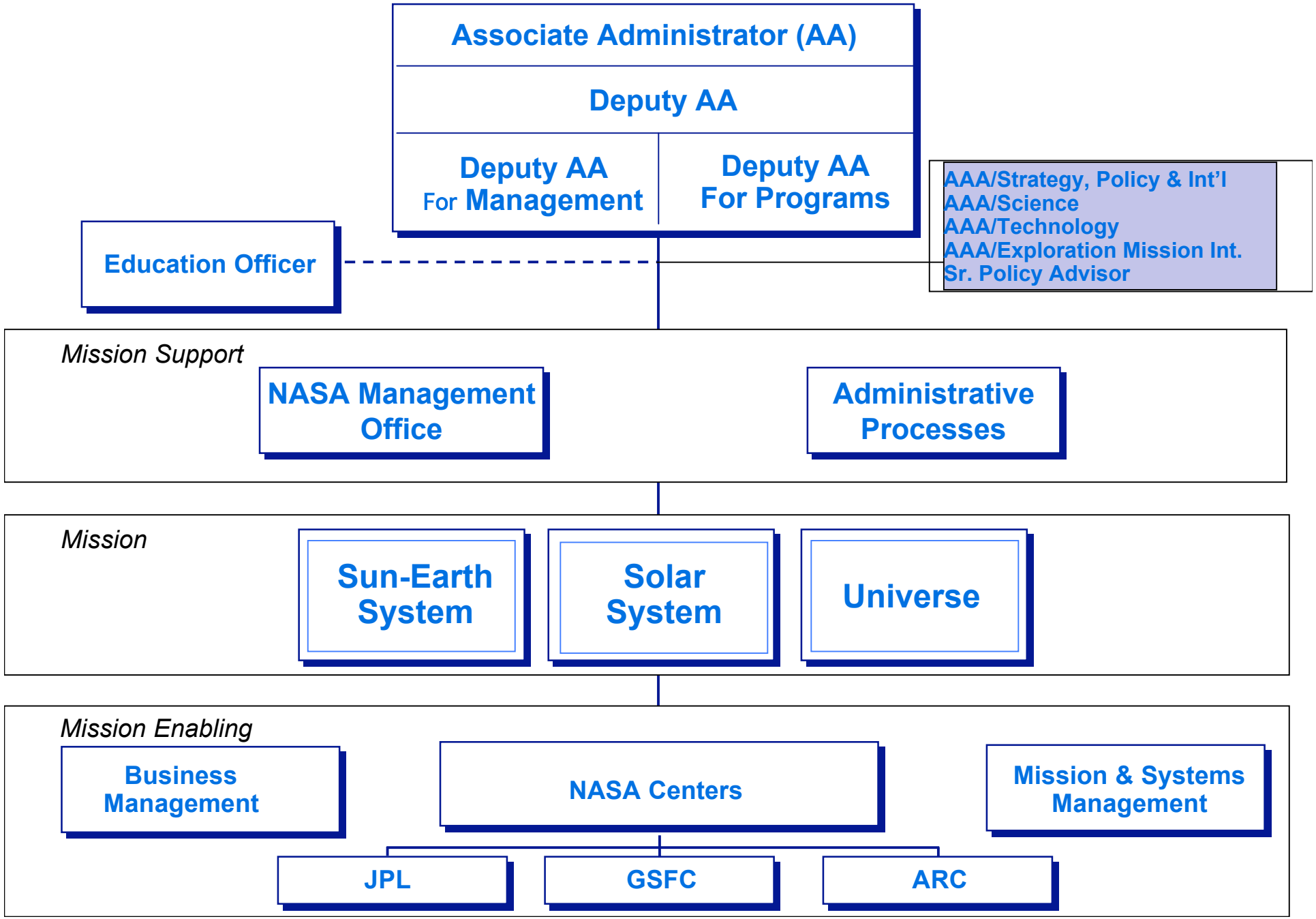
Program Scientist Report
to
Sounding Rocket Working Group

Mary Mellott

January 19, 2005


Inspector General
Administrator
Advisory
NASA Advisory Council
Aerospace Safety Advisory Panel
Chief Safety & Mission Assurance Officer
Deputy Administrator
(Chief Operating Officer)
Chief of Staff
Chief Education Officer
Staff
ADA Systems Integration
Chief Scientist
Chief Health and Medical Officer
Director of Advanced Planning
MISSION DIRECTORATES
Exploration Systems
Space Operations
Johnson
Kennedy
Marshall
Stennis
Science
Ames
Goddard
Jet Propulsion Laboratory
Aeronautics Research
Dryden
Glenn
Langley
MISSION SUPPORT OFFICES
Chief Financial Officer
Procurement
Small & Disadvantaged Business Utilization*
Chief Information Officer
Chief Engineer
Independent Technical Authority
Institutions & Management
Human Capital Management
Infrastructure, Management, and Headquarters Operations
Diversity and Equal Opportunity*
Security and Program Protection
General Counsel
Chief of Strategic Communications
Public Affairs**
Legislative Affairs
External Relations

SRWG 1/19/05


Associate Administrator (AA)
Deputy AA
Deputy AA For Management
Deputy AA For Programs
AAA/Strategy, Policy & Int'l
AAA/Science
AAA/Technology
AAA/Exploration Mission Int.
Sr. Policy Advisor
Education Officer
Mission Support
NASA Management Office
Administrative Processes
Mission
Sun-Earth System
Solar System
Universe
Mission Enabling
Business Management
NASA Centers
Mission & Systems Management
JPL
GSFC
ARC

SCIENCE MANAGEMENT PROCESS ACTION TEAM

During the last quarter of each fiscal year the SRPO

- compiles a list of all requested future flights
- attaches a dollar value to each flight
- sends the list to the HQ Program Officer
- who consults with the Discipline Scientists
- validating and prioritizing the flight requests
- Program Officer prepares the new FY Fly List
- submits it to the SRPO
- who works with NSROC to implement it
- Significant changes negotiated with the PO and the affected Discipline Scientists.

The Sounding Rocket Independent Review Team Report of the Programmatic Elements and Cost Structures Of the Wallops Flight Facility Sounding Rocket Program Office

September 2004 - Team assembled

October 21/22, 2004 - Review at WFF

December 10, 2004 - Report Submitted

Team Members

Mr. Gary Rawitscher	Chairman
Mr. Gerry Daelemans	Executive Secretary
Ms. Latonya Alexander	Program Analyst
Mr. Paul DeMinco	Technical Member
Ms. Jane Green	Program Analyst
Ms. Renee Leck	Program Analyst
Dr. Mary Mellott	Science Member
Ms. Karen Poniatowski	Technical Member
Dr. Wilton Sanders	Science Member

REVIEW TEAM OBSERVATIONS

1. The Sounding Rocket Program is extremely well managed by a dedicated, hard-working group that epitomizes NASA's efforts to explore the Universe and engage the next generation of explorers. Heroic efforts to meet customer, public, or other stakeholder needs are common.

2.a. The various HQ elements that fund sounding rocket science do not coordinate effectively enough with each other to ensure a rational set of demands on the Sounding Rocket Program.

2.b. There is little incentive to minimize total mission-specific requirements, either at or following selection

REVIEW TEAM OBSERVATIONS, cont.

3. The program has a significant long-term problem in that the user community wants a higher-end mix of missions than the program can currently afford.

   While there is some room for modification of both WFF SRPO and NASA HQ processes around the implementation of the NASA Sounding Rocket Program, there are no significant changes to be made that will result in an increase of high performance missions without a commensurate increase in budget to the program or a reduction of the requirements it needs to address

OBSERVATION 2.a

Observation: The various HQ elements that fund sounding rocket science do not coordinate effectively enough with each other to ensure a rational set of demands on the Sounding Rocket Program.

Responses:

1. Reinstitute HQ Sounding Rocket Team
2. Per SM-PAT, institute an annual review of the flight manifest

OBSERVATION 2.b

2.b. There is little incentive to minimize total mission-specific requirements, either at or following selection

Response

- Require proposing PI's to include sufficient information about anticipated programs to allow the SRPO to make a ROM cost estimate for the associated operational support
- Discipline Scientist sends copies of all proposals in the competitive range for selection to the SRPO
- SRPO reports estimated costs back to Discipline Scientist, who takes them into account in making recommendation for selection

RESPONSE TO 2.b, cont.

a. Launch site
b. Launch date and window requirements
c. Apogee and/or observation time requirements
d. Experiment section weight, diameter, length and CG estimate e. Desired layout of the experiment section(s)
f. ACS pointing requirements
g. Telemetry data rates, number of links anticipated
h. Experiment power requirements and power cleanliness requirements
i. Special systems requirements (GPS, vacuum, video cameras, deployment mechanisms, payload purging, etc)
j. Recovery requirements (if any)
k. Special launch considerations (duration between launches, special requirements, window constraints, etc)
l. Schedule for the instruments (or experiment section)
m. Hardware to be built by NSROC (skins, structures, doors, fixtures, etc)
n. Other...